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NOTES ON THE DISTRIBUTION OF THE PLEURODONTÉ SINUATA GROUP

BY P. W. JARVIS.

Jamaican Pleurodontæ fall into two distinct groups: those that have two teeth on the peristome, with *P. acuta* as type (see last article), and the four-toothed species, with *P. sinuata* and *peracutissima* as types.

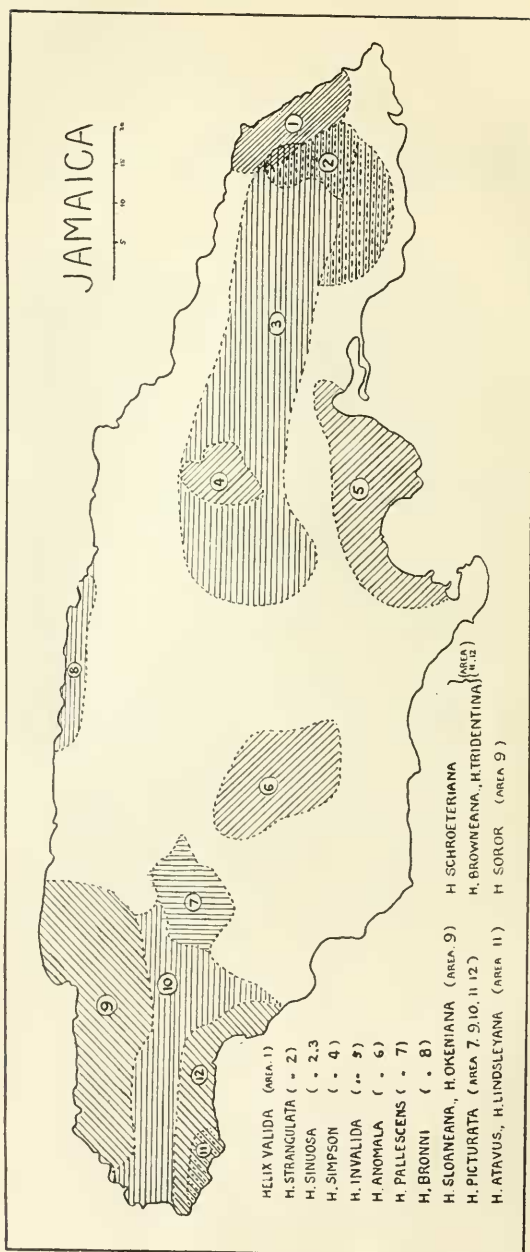
The species of this second group are:

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| 1. <i>P. valida</i> (Ads.). | 11. <i>P. picturata</i> (Ads.). |
| 2. <i>P. strangulata</i> (Ads.). | 12. <i>P. atavus</i> (Sh.). |
| 3. <i>P. sinuosa</i> (Fer.). | 13. <i>P. lindsleyana</i> (Chitty). |
| 4. <i>P. simpson</i> (Pfr.). | 14. <i>P. schroeteriana</i> (Pfr.). |
| 5. <i>P. invalida</i> (Ads.). | 15. <i>P. tridentina</i> (Fer.). |
| 6. <i>P. anomala</i> (Pfr.). | 16. <i>P. browneana</i> (Pfr.). |
| 7. <i>P. pallescens</i> (Sh.). | 17. <i>P. sinuata</i> (Müll.). |
| 8. <i>P. bronni</i> (Pfr.). | 18. <i>P. soror</i> (Fer.). |
| 9. <i>P. sloaneana</i> (Sh.). | 19. <i>P. peracutissima</i> (Ads.). |
| 10. <i>P. okeneana</i> (Pfr.). | 20. <i>P. cara</i> (Ads.). |

Pleurodonte valida (Ads.) (No. 1 in map), John Crow Mountains, in the extreme east of the island. This common woodland species is very abundant in the north and eastern parts of this area.¹

Pleurodonte strangulata (Ads.) (Area No. 2), not a common shell, though rather widely distributed. The remarkable shape of the aperture at once distinguishes it from its allies.

¹Specimens of *P. valida* were taken near Hope Bay by C. W. Johnson and W. J. Fox, in 1891.



Pleurodonte sinuosa (Fer.) (Area No. 3). Common on the mountains in the eastern half of the island; often found from 2,000 to 3,000 feet above sea level.

Pleurodonte simpson (Pfr.) (Area No. 4). If this is not a good species, it is the small globose local form of *H. sinuata* found in the Richmond Valley district, where it abounds to the exclusion of the other forms of *sinuata*.

Pleurodonte invalida (Ads.) (Area No. 5) is limited to the lowlands of St. Catherine and common all over this district, even in the wooded swamps near the sea. It is found in company with the var. *sublucerna* of *acuta*, and possibly is a diminutive or lowland variety of *H. sinuata*.

Pleurodonte anomala (Pfr.) (Area No. 6) is a very remarkable and readily distinguished species, limited to the Manchester district. The var. *convexa* of Adams occurs at Balaclava.

Pleurodonte pallescens (Sh.) (Area 7) is limited to the cock-pit country, and very common in the "sink-holes" at Mulgrave, in St. Elizabeth.

Pleurodonte bronni (Pfr.) (Area 8) is not a common shell, being limited to a few miles of the coast hills on the north side of the island, near Rio Bueno and St. Ann's Bay.

Pleurodonte sloaneana (Sh.) and *P. okeniana* (Pfr.) (Area 9) are both distributed throughout this area. *P. sloaneana* is very common and found living everywhere, whilst *P. okeniana* (the larger of the two species) is represented by dead shells alone in the southern and eastern parts of this area, and at present only found living at Hanover.

Pleurodonte picturata (Ads.) (Areas 7, 9, 10, 11, 12). This extremely pretty shell spreads from the cock-pit country through St. James, Hanover, Westmoreland and the western parts of St. Elizabeth. The var. A. of Adams with the more elevated spire and closed umbilicus, occurs in the western parts of Westmoreland and common near Negril.

Pleurodonte atavus (Sh.) (Area 11) is very local, limited to low coast hills lying west of Little London in Westmoreland, where it is far from abundant. The arrangement of the teeth on the peristome and general build of the shell at once distinguish it.

Pleurodonte lindsleyana (Chitty) (Area 11). A few poor specimens of this shell come from the same locality as *P. atavus*. This

is also Chitty's type locality where he obtained a few good specimens.

Pleurodonte schroeteriana (Pfr.) (Area 12). This species abounds in the wood of the western part of Westmoreland, it occurs much less commonly in the other parts of this area.

Pleurodonte tridentina (Fer.) and *P. browneana* (Area 12) are found in the woods on the northern parts of this area, at a higher elevation than *P. schroeteriana*. These two species are allied to *P. schroeteriana*, and if not good species, the types are very highly differentiated varieties. These shells are also subject to considerable individual variation.

Pleurodonte sinuata (Müll.) is the only species of this group which is found almost all over the island. Slightly specialized local forms do occur, but it is remarkable that a shell so widely distributed and so abundant should be so constant.

Pleurodonte soror (Fer.) (Area 9). This shell occurs in the Parish of Hanover and the bordering mountains of Westmoreland.

Pleurodonte peracutissima (Ads.). This shell is generally distributed over the higher regions of Manchester, Clarendon, St. Ann, Trelawny and St. Elizabeth. In spite of this species being so widely distributed and varying very much in size, and other minor characters, there is little doubt as to the extreme varieties belonging to the same species. Several localities have their typical varieties of this species.

Pleurodonte cara (Ads.) inhabits the western part of the Island (the part shaded on the map), and a few stragglers have been found in the mountains on the north of Manchester and St. Elizabeth. There are two very distinct varieties of this shell, the type with the "very thick, strong lip" from St. James and Hanover, and the common and more widely distributed variety which is of a much lighter build and with thinner lip.

NOTICES OF NEW LAND SHELLS OF THE JAPANESE EMPIRE.

BY H. A. PILSBRY.

Eulota despecta var. *kikaiensis* n. var.

Smaller and more solid than *despecta*, pink-tinted, at least near the aperture; the cuticle thin or wanting, hardly yellowish. Inner